

Application Serial No. 10/584,778
Reply to office action of June 11, 2009

NOV 10 2009

PATENT
Docket: CU-4906**REMARKS/ARGUMENTS**

Upon entry of the foregoing amendments, claims 1, 3, 6 and 7 will remain pending in the application. Claims 1, 3, 6 and 7 have been amended. The amendments are supported by the context of the claims and Figs. 2-4 as well as the corresponding written description in the specification, and do not introduce new matter. Their entry is therefore respectfully requested.

In the Office Action of June 11, 2009, Examiner set forth a number of grounds for rejection. These grounds are addressed individually and in detail below.

Claim Rejections Under 35 U.S.C. § 102

Claims 1-7 stand rejected under 35 U.S.C. § 102(b) as being anticipated by *Klein et al* (US 5671439) for the reasons set forth on pages 2-4 of the Office Action. Applicant respectfully traverses the rejection.

Independent claim 1 of the present application, as amended, is directed to a data write-in method for a flash memory, wherein the flash memory comprises at least two flash chips, and the method comprises: partitioning physical blocks in the flash chips to odd logical block addresses and even logical block addresses, respectively; receiving data write-in instructions and analyzing a beginning logical address for writing from the received data write-in instructions; obtaining the logical block address needed to be written according to the analyzed beginning logical address; determining a parity of the obtained logical block address, selecting one corresponding flash chip from the flash chips according to the determined parity of the logical block address; directing first programming or erasing instructions to the physical blocks corresponding to the obtained logical block address in the selected flash chip; detecting whether the other flash chip needs to be programmed or erased during the first programming or erasing instructions are being processed; if need, the method further comprises: directing second programming or erasing instructions to the other flash chip.

A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described in a single prior art reference. Verdegaal

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Bros. v. Union Oil Co. Of California, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). There must be no difference between the claimed invention and the reference disclosure, as viewed by a person of ordinary skill in the field of the invention. Scripps Clinic Research & Foundation v. Genentech Inc., 18 USPQ2d 1001, 1010 (Fed. Cir. 1991).

Klein et al discloses a virtual mass storage device which is implemented on multiple physical storage devices. In particular, in the preferred virtual device shown in Fig. 1(a), sectors of logical addresses of the virtual device may be allocated between two physical devices using block-by-block interleaving, where even blocks are allocated to drive A, and odd blocks are allocated to drive B. Please refer to paragraphs 3-4 of column 6 in the specification. In the processing, as shown in Fig.2, if the total transfer is one sector or the range of sectors are within a single block, the processing is carried out in one of Driver A and Driver B (blocks 112-124 of Fig. 2). However, if the total transfer is neither one sector nor a single block, it is determined whether the starting logical sector is on Drive A or Drive B. If on Drive A, a block of data is moved/transferred between the host computer memory and the on-board memory of Drive A (blocks 132-140 of Fig. 2), after which it is determined whether there is any more data to be transferred (block 142). If yes, a block of data is transferred between the host computer memory and the on-board memory of Drive B (blocks 142-152 of Fig.2).

From the above, it is clear that the whole transferring in Klein et al is processed in Driver A or Driver B, not in the both at one time. Accordingly, it has a disadvantage that two different operations (i.e., programming) cannot be performed simultaneously, as mentioned in paragraph [0003] of the BACKGROUND of the application.

However, according to the claim 1 as amended, the second programming or erasing instructions may be sent to the other flash chip for a corresponding write-in processing in the other flash chip during first programming or erasing instructions are being processed in one flash chip. The method as claimed in the amended claim 1 makes it possible to program or erase one flash chip while programming or erasing the other flash chip, thereby greatly saving the writing operation time and increasing the data write-in speed. Please refer to paragraph [0006] of the application

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In view of the above, Klein et al at least fails to disclose the features of the amended claim 1 of the application: "detecting whether the other flash chip needs to be programmed or erased during the first programming or erasing instructions are being processed; if need, the method further comprises: directing second programming or erasing instructions to the other flash chip". Therefore, claim 1 is not anticipated by Klein et al.

Accordingly, claims 3, 6 and 7 are not anticipated by Klein et al, too, because they depend from claim 1 and recite all the limitations of claim 1. Withdrawal of the rejection of claims under 35 U.S.C. § 102 is respectfully requested.

NO DISCLAIMERS OR DISAVOWALS

Although the present communication may include alterations to the application or claims, or characterizations of claim scope or referenced art, the Applicants are not conceding in this application that previously pending claims are not patentable over the cited references. Rather, any alterations or characterizations are being made to facilitate expeditious prosecution of this application. The Applicants reserve the right to pursue at a later date any previously pending or other broader or narrower claims that capture any subject matter supported by the present disclosure, including subject matter found to be specifically disclaimed herein or by any prior prosecution. Accordingly, reviewers of this or any parent, child or related prosecution history shall not reasonably infer that the Applicants have made any disclaimers or disavowals of any subject matter supported by the present application.

CONCLUSION

For the reasons set forth above, the applicant respectfully submits that claims 1, 3, and 6-7, now pending in this application, are in condition for allowance over the cited references. Accordingly, the applicant respectfully requests reconsideration and withdrawal of the outstanding rejections and earnestly solicits an indication of allowable subject matter.

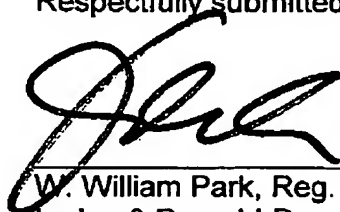
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This amendment is considered to be responsive to all points raised in the office action. Should the examiner have any remaining questions or concerns, the examiner is encouraged to contact the undersigned attorney by telephone to expeditiously resolve such concerns.

Respectfully submitted,

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